

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE SIDEWALK RAMPS, INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS AND SIGNS AT THE INTERSECTIONS OF MD 528 (COASTAL HWY) WITH 48TH AND 49TH STREET. MD 528 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THESE INTERSECTIONS WILL OPERATE IN A NEMA SIX-PHASE FULL-TRAFFIC-ACTUATED MODE. THE MD 528 NORTHBOUND AND SOUTHBOUND LEFT TURNS AT 48TH STREET OPERATE IN AN EXCLUSIVE-PERMISSIVE PHASING. ALTERNATE PEDESTRIAN PHASE IS PROVIDED FOR THE NORTH AND SOUTH LEG OF THE INTERSECTION WITH 48TH STREET AND THE NORTH LEG OF THE INTERSECTION WITH 49TH STREET.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER WITH TELEMETRY CABLE HOUSED IN A BASE MOUNTED CABINET SHALL REMAIN. A 2-WIRE APS CENTRAL CONTROL UNIT WILL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY SHA.

SPECIAL NOTE

APS WILL FUNCTION AS FOLLOWS:

TO CROSS COASTAL HWY AT 48TH STREET:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS COASTAL AT 48TH, WAIT"
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS COASTAL HWY AT 49TH STREET:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS COASTAL AT 49TH, WAIT"
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACT PERSONS FOR DISTRICT #1 ARE AS FOLLOWS:

MR. KENNETH CIMINO  
ASSISTANT DISTRICT ENGINEER-TRAFFIC  
PHONE: (410) 677-4040

MR. GREG HOLSEY  
ASSISTANT DISTRICT ENGINEER - CONST.  
PHONE: (410) 677-4020

MR. BRUCE POOLE  
DISTRICT UTILITY ENGINEER  
PHONE: (410) 677-4082

MR. JAMES WRIGHT  
ASSISTANT DISTRICT ENGINEER - MAINT.  
PHONE: (410) 677-4010

MR. TERRY MCGEAN  
TOWN OF OCEAN CITY - CITY ENGINEER  
PHONE: (410) 289-8845

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS  
DIVISION  
PHONE: (410)787-7630

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF  
TRAFFIC OPERATIONS  
(410)787-7630

MR. ED RODENHIZER  
CHIEF, SIGNAL OPERATIONS  
(410)787-7650

MR. EUGENE BAILEY  
CHIEF, SIGN OPERATIONS  
(410)787-7676

MR. JOHN GOVER  
OFFICE OF HIGHWAY DESIGN  
PHONE: (410) 545-8766

EQUIPMENT LIST "A,B & C"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

| ITEM NO. | DESCRIPTION   | UNIT | QUANTITY |
|----------|---|------|----------|
| 9571     | SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN<br>7' - R10-3(1) - 9"X15" | SF   | 7        |

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

| ITEM NO. | DESCRIPTION   | UNIT | QUANTITY |
|----------|---|------|----------|
| 1002     | REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH                         | LF   | 2350     |
| 5005     | 12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS            | LF   | 1850     |
| 8001     | FURNISH AND INSTALL AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS | EA   | 4        |
| 8002     | FURNISH AND INSTALL BREAKWAY PEDESTAL POLE - ANY SIZE                         | EA   | 3        |
| 8003     | FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS             | EA   | 6        |
| 8004     | REMOVE AND DISPOSE PER ASSIGNMENT   | EA   | 1        |
| 8007     | FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED     | LF   | 30       |
| 8009     | ADJUST EXISTING HANDHOLE  | EA   | 6        |
| 8010     | NO. 6 AWG STRANDED BARE COPPER GROUND WIRE                                    | LF   | 30       |
| 8013     | INSTALL GROUND MOUNTED SIGN   | SF   | 7        |
| 8018     | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)                                   | LF   | 1150     |
| 8019     | ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)                                   | LF   | 1180     |

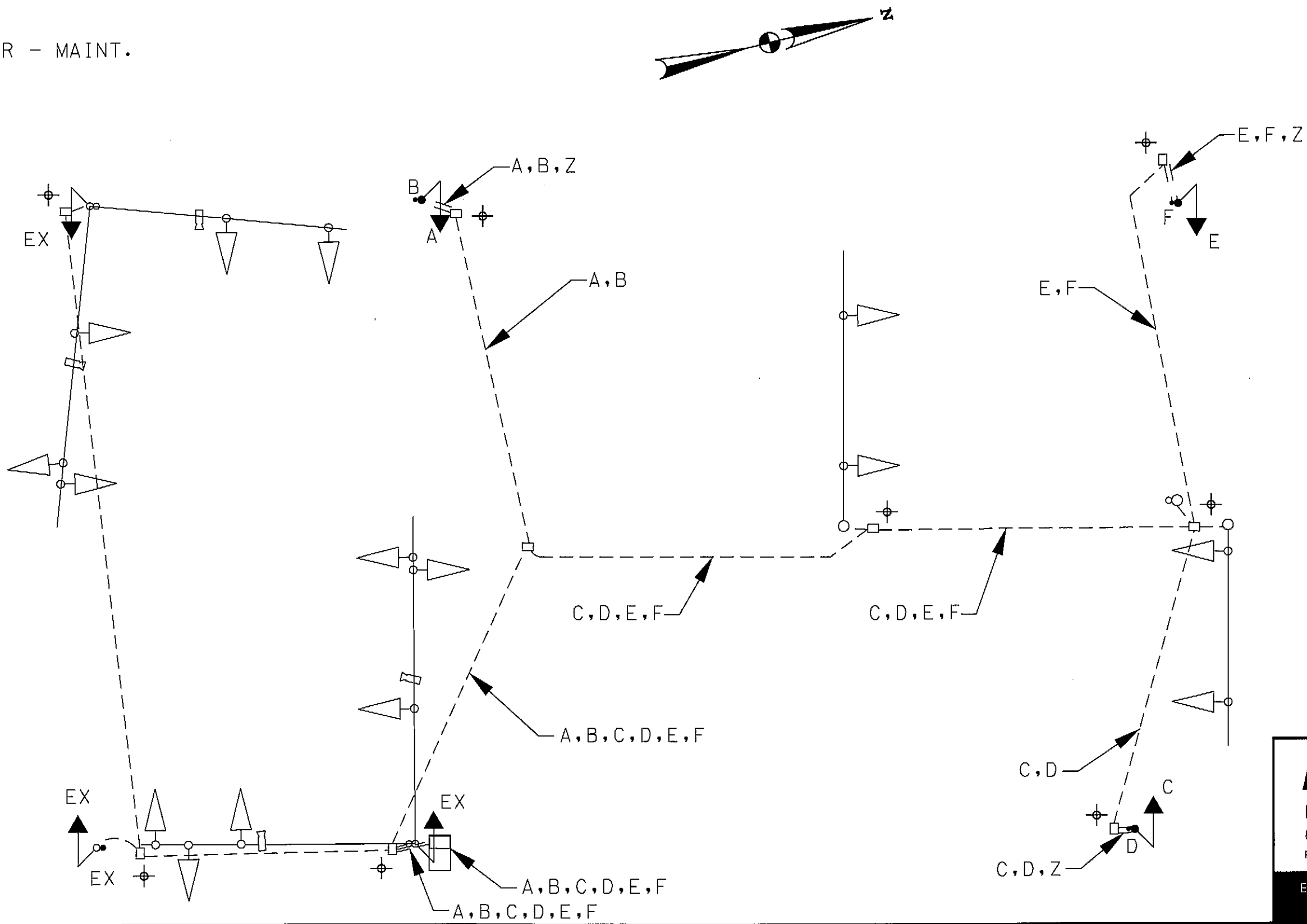
C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ALL EXISTING APS PUSHBUTTONS TO BE REMOVED SHALL BE RETURNED TO SHA DURING SIGNAL TURN-ON.

PHASING CHART

NO PHASE CHANGE

GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
- UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- LOCATION OF ACCESSIBLE PEDESTRIAN PUSHBUTTONS MUST MEET THE LOCATION REQUIREMENTS OF THE MUTCD, SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM 60"X60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN 2%.
- PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- ADA REQUIRES THAT ANY ABRUPT CHANGE IN ELEVATION IN SIDEWALK BE LESS THAN 1/4".
- ALL PROPOSED FOUNDATION TOPS SHALL BE INSTALLED FLUSH WITH SIDEWALK GRADE.
- ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7652 TO COORDINATE.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL ENSURE ALL UNDERGROUND UTILITIES ARE MARKED PRIOR TO TRAFFIC SIGNAL STAKEOUT. THE CONTRACTOR SHALL ENSURE ALL UNDERGROUND UTILITIES ARE MARKED AND STAKEOUT HAS OCCURED PRIOR TO TRAFFIC SIGNAL TURN OFF.



WIRING KEY

|       |  |
|-------|--|
| EX    | USE EXISTING CABLE                           |
| A,C,E | 5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)     |
| B,D,F | 2-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)     |
| Z     | STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG) |
| +     | EXISTING GROUND ROD                          |

**RK&K**  
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**SHA**

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 528 (COASTAL HWY) AT  
48TH & 49TH STREET  
OCEAN CITY, MARYLAND

GENERAL INFORMATION SHEET

|             |          |          |             |              |           |
|-------------|----------|----------|-------------|--------------|-----------|
| SCALE       | NONE     | DATE     | JUNE 2012   | CONTRACT NO. | XX1285133 |
| DESIGNED BY | AMR      | COUNTY   | WORCESTER   |              |           |
| DRAWN BY    | AMR      | LOGMILE  | 23052805.51 |              |           |
| CHECKED BY  | BJG      | TIMS NO. |             |              |           |
| FAP NO.     |          | TOD NO.  |             |              |           |
| TS NO.      | 1859G-G1 | DRAWING  | SP-2        | OF           | 2         |
|             |          |          |             | SHEET NO.    | 18 OF 26  |